Setup Manual

EZ-CUBE

On-Chip Debug Emulator with Programming Function

1 Preface

Thank you for using EZ-CUBE.
EZ-CUBE is an on-chip debug emulator with flash programming function, which is used for debugging and programming a program to be embedded in on-chip flash memory microcontrollers.
Please entirely read this document first; you will obtain an overview of information on preparation for using EZ-CUBE, startup, support, and so on.

<1>Checking the package contents
EZ-CUBE, USB cable, target cable and CD.
If there are any missing or damaged items, consult an RENESAS Electronics sales representative or distributor.

<2> EZ-CUBE product information
For information on EZ-CUBE, access the following RENESAS Electronics website.
http://cn.renesas.com

<3>EZ-CUBE software
Use of the latest version of software is recommended.

2 Software installation

EZ-CUBE software must be installed before using EZ-CUBE. The following explains how to install RENESAS Electronics software. Please read “Read me first” before using CS+/CubeSuite+.

Caution:
1. Do not use Chinese catalog, Chinese folder and Chinese filename.
2. Do not connect EZ-CUBE to the host machine until installation of software is completed.

<1> Insert the CD-ROM into the drive
Install CubeSuite+.
You must have the .NET Framework 4+ and the Visual C++ 2010 SP1 runtime components. Please install them before installing CS+/CubeSuite+.

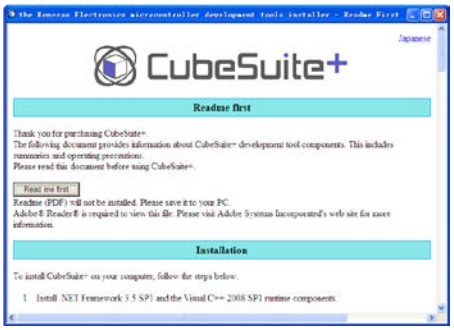


Figure 2-1. Preparing to Install Page

<2>Click the [Begin CS+/CubeSuite+ Setup]
Start to install.

2 Software installation

<3> Confirm the software license agreement
The installer asks if you agree to the license agreement.
Check the information, and if there are no problems, select “Accept”, then click the [Next] button.
If you select "Do not accept", you cannot continue with the installation.

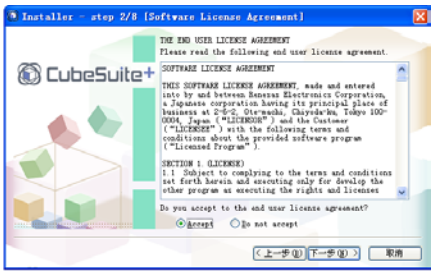

Installer - step 2/8 [Software License Agreement]
CubeSuite+
THE END USER LICENSE AGREEMENT
Please read the following end user license agreement.
SOFTWARE LICENSE AGREEMENT
Accept
Do not accept

Figure 2-2. Software License Agreement Window

<4>Select the development tools and the installation location
Select the check boxes of the development tools for the microcontrollers for which you wish to install.
If you wish to change the installation location, edit it in the [Install location] area.

<5>Confirm the results of the installation
When all setup-related tasks are finished, the results of the installation appear.

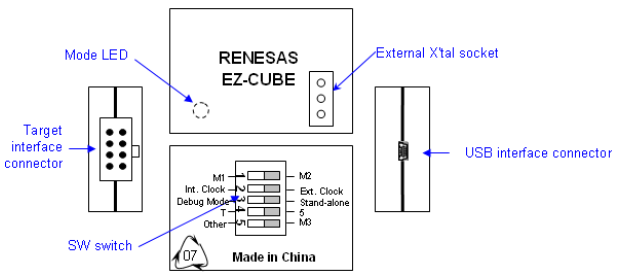
<6>Installation of the USB driver
Connect EZ-CUBE to the host machine.
Download USB driver from the CD. Please install this USB driver.

3 Setting and Connecting Hardware

using the RL78/G13 as an example. For other series and their applications, refer to the EZ-CUBE User‘s Manual.

<1>Firmware Update
①Connect EZ-CUBE to the host machine. **Do not connect EZ-CUBE to the target system.**
②Start the [QBEZUTL.exe]. Select firmware of RL78 (RL78_OCD_FW(except G10).hex).
③Click the [Start] button. Start to update the EZ-CUBE firmware.

<2>Switch setting
SW-1: Select switch to “M2”.
SW-2: Select switch to “Int. Clock”.
SW-3: Select switch to “Debug Mode”.
SW-4: Depend on the device used. For details, refer to the **EZ-CUBE User’s Manual.**
SW-5: Select switch to “Other”.



<3>Connecting the target system
Connect EZ-CUBE to the target system.
Perform connection before the power to the target system is turned on.

<4>Connecting the USB cable
Connect EZ-CUBE to the host machine, before the power to the target system is turned on.
The mode LED glows red after connection.

<5>Applying power to target system
Turn on power to the target system. This step is not necessary if the power select switch is set to “5”.

4 Securing the user resources and setting the security ID

Before on-chip debugging is performed with EZ-CUBE, the user resources, such as memory spaces, must be secured. The security ID must be set in order to prevent the program from being read by an unauthorized person. For details on these settings, refer to the EZ-CUBE user's manual. If the flash memory of the target device has already been erased (0xFF is written to the entire flash memory space), the debugger starts without problem. This enables checking of the target system circuit design. Devices whose flash memory has been erased have the security ID "0xFFFFFFFFFFFFFFFFFFFF" (10 bytes).

5 Debugger startup

Start the debugger. For the operation after startup, refer to user's manuals of the CS+/CubeSuite+.

6 Programmer startup

Start the Renesas Flash Programmer. For the operation after startup, refer to user's manual of the software.

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